DOCUMENT RESUME

ED 028 244 VT 005 832

Feasibility Study of Problems in the Collection of Data on Job Vacancies.
Illinois State Dept. of Labor, Chicago. Bureau of Employment Security.
Pub Date Mar 64
Note-27p.
EDRS Price MF-$0.25 HC-$1.45
Descriptors-*Data Collection, *Employment Opportunities, *Feasibility Studies, *Occupational Surveys, Questionnaires, *Research Methodology, Research Problems
Identifiers-Job Vacancies

Sixty-two firms within 20 industries were surveyed to determine (1) a definition for the term "job vacancy," (2) the extent of job vacancy records of employers, (3) the possibility of data collection on job vacancies, and (4) the problems expected to be encountered in such a collection. After stratification of an industry by the relative size of the firm's work force, samples were chosen randomly from each class of firms. Each interviewer was assigned to interview only three firms, all within an industry with which he was acquainted. A 1-day training session of interviewers explained the background and purposes of the study. The questionnaires were tabulated by relative size of firm and by industry. Employer schedules which had been left with cooperating employers, were separated, and those with job vacancies were tabulated with assigned occupational codes. Conclusions of a lack of universal interest in job vacancy records and a number of uncertainties which could effect a job vacancy program, led to the recommendation that other means be explored before collection of these data from employers be undertaken. (MU)

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ILLINOIS DEPARTMENT OF LABOR

BUREAU OF EMPLOYMENT SECURITY

FEASIBILITY STUDY OF PROBLEMS IN THE COLLECTION OF DATA ON JOB VACANCIES

Research and Statistics Section

March 1964

VT005832

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FEASIBILITY STUDY OF PROBLEMS IN THE COLLECTION OF DATA ON JOB VACANCIES

Introduction

The increasing complexity of our economy demands an increase in the quality and quantity of economic intelligence available for decision making purposes. The labor force is probably the most valuable of our economic resources. It is important that this labor force not only be adequate in size but also in quality to meet the needs of employers for staffing their operations. Since training for many jobs in the labor market requires from several months to several years, it is essential to know, in detail, what the demands for labor are and what they will be in the near future.

In an effort to improve the quality and quantity of labor market information in Illinois as well as the rest of the nation, the Illinois Bureau of Employment Security in cooperation with the U. S. Bureau of Employment Security, planned and conducted a job vacancy data feasibility survey of 62 firms in the County of Cook. Briefly stated, the aims of the survey were:

1. To determine a definition for the term "job vacancy."

2. To determine whether job vacancy records are being kept by employers, and if so, their content.

3. To determine whether data on job vacancies could be collected.

4. To determine what problems would arise in attempting to collect such data.

Survey Findings

Though the 62 firms were stratified by relative size of their work force, the results were not affected by the size of the participating firm. On the other hand, there were marked differences among the 20 different industries canvassed in the ease with which job vacancy data could be obtained. These differences served to uncover problems which must be resolved before any collection program is attempted.

Definition of "Job Vacancy"

In order to determine whether a common understanding of the term "job vacancy" already existed, the 62 employers surveyed were asked: "What would you understand by the term 'Job Vacancy'?," the interviewees had difficulty replying, as the term seemed unfamiliar to them. However, the interviewers pressed the employers for answers and the three most common replies, in that order, were:

1. Unfilled openings or jobs.

2. Openings due to turnover (replacement demand).

3. Jobs needed to be filled to maintain or meet production levels.

Very few of the employers specifically noted that job openings might be caused by a combination of turnover and expansion, though both could be read into the first and third replies.

Probing more deeply, the interviewers found that a majority of the 62 employers included the following in their definitions of "job vacancy":

1. Jobs filled the same day as the opening arose (40 firms).

2. Part-time jobs which are vacant (37 firms).

3. A job opening where the inability to recruit a new employee has caused the employer to schedule overtime for employees in a similar capacity (51 firms).

4. The key job which must be filled before additional workers are hired plus the additional jobs (33 firms).

A majority of the 62 employers (38 firms) excluded from their definitions, job openings for which a call-back of laid-off workers is scheduled.

More than four-fifths of the employers (52 firms) agreed with the preconceived definition of a "Job Vacancy" which appeared in the questionnaire. The definition read "All jobs lasting more than three days for which the firm is now actively recruiting workers."

Although most of the interviewees thought that the above was an adequate definition, those who disliked the definition (and some who agreed with the definition) commented on that part of the definition which read "All jobs lasting more than three days...". The comments fell into three categories. They were:

1. Many thought the job had to be vacant more than three days before it could be counted as a vacancy.

2. Some said that the job had to last a week or more, or be a permanent position, before they recruited for it.

3. Some stated that any opening should be considered a job vacancy, regardless of the expected duration of the job.

Job Vacancy Records

Of the 62 firms interviewed, only 15 firms actually had formal job vacancy records while two other firms maintained partial job vacancy records. In 11 of these firms, the records were maintained by one person at a single location. Four firms reported that the records were at one location, but were maintained by two to three persons, while the remaining two firms stated that records were available at a number of locations and were maintained by recruiting personnel at those locations. Nevertheless, these employers already had the records in a central location or would be able to assemble them

in one place.

Although two of the 17 firms having records did not have records for all of the vacancies in their firms, all 17 indicated they would be able to identify the number and job title of their vacancies. Over two thirds (12) of the 17 firms kept job vacancy records for one year or more, while the remainder kept their records until the end of the month (2 firms) or until the vacancy was filled (3 firms).

Some of the 17 firms commented that the assembly of job vacancy data would require a change in the normal routine because there was presently no central file; assembly of records would be time consuming; and that the vacancies filled by the office were usually limited to the critical or hard-to-fill vacancies. It should be noted that the firms which felt it necessary to comment were the relatively large firms.

Six of the 17 firms had to notify a central office before they began to recruit for an opening. This notification took place the same day the opening arose in four firms, while the time lag on notification was one week in a fifth firm and varied either with the type of occupation or location of outlet or both in the sixth firm.

Approximately three-quarters of the 62 firms interviewed (47) had no formal records for job vacancies. Two additional firms kept only partial records. In these 49 firms, an attempt was made to ascertain where, in the recruitment process, complete job vacancy information might be found and obtained. Of these firms, 30 reported that one person recruited for all of the vacancies in the firm. Another 17 firms reported that two or more persons recruited for the vacancies in the firm at a central location. In nine of these 17 firms, the recruiting was carried out by two persons each of whom specialized in recruiting for vacancies in specific occupations. In two of the 17 firms, two persons recruited for all vacancies regardless of occupation. Three or more persons recruited for vacancies in six of the 17 firms. Two or more persons recruited for vacancies at two or more locations in the remainder of the 49 firms.

Forty-four of the 49 firms reported that the person handling recruitment had the final authority to initiate recruitment. Three firms reported that the recruiter had to seek the approval of the chief officer of the firm. Nevertheless, a central person or department was informed of the intention to recruit in 33 of the 49 firms. This transmittal took place the same day as the vacancy arose, and included the vacancies by number and job title. Of the 14 firms where there was no central person or department to inform, six firms stated that a mental record was kept by the person handling the recruitment and eight firms denied the existence of any record at all. Two firms failed to respond to this series of questions.

Availability of Data

More than four-fifths (52 firms) of the firms interviewed reported that they could provide a listing of all vacancies by job title. An even higher number of firms (55) stated that they would furnish job vacancy data to the Illinois State Employment Service on a continuing basis. The main reason for the difference in response to the two questions was that some firms could

provide only a partial listing of all vacancies since they only kept partial records. The seven firms which were unable to provide a listing of any types of job vacancies were the same firms which refused to submit job vacancy data to the Illinois State Employment Service.

Job vacancy information was available daily in 47 of the 55 firms. The remaining firms stated that the data were available at the end of the week (6 firms) or at the end of the month or later (2 firms).

Thirty-three of the 55 firms tended to retain such information for a period of one week following a specific date. The remaining 22 firms retained this type of data for two or more weeks following a specific date. The short duration of retention was due to two facts. First, this type of information was a mental rather than a written record in many firms. Secondly, many firms destroyed such information when a vacancy was filled or was allowed to remain vacant.

When this group of 55 firms was asked how frequently they would be willing to supply job vacancy data, 33 firms responded "monthly;" 10 firms responded "quarterly;" nine cited longer time periods up to and including one year; and three firms were willing to provide the data weekly.

When interviewed concerning the availability of job vacancy information, interviewees' comments fell into three categories:

1. Although those who were unwilling to cooperate stated they were "too busy," a careful analysis indicates that they may have felt that these reports would be utilized for ISES referral and placement activity. (One stated that any vacancy he might have would be filled by the time ISES received the report, while another complained, at this point, about the low quality of ISES referrals. A third employer commented he would submit a report only <u>after</u> he had complied with his firm's union agreement, which requires him to post all vacancies in a conspicuous place in the plant and the last employer stated that he would submit such data for statistical purposes only.)

2. Many firms would cooperate only if the form were concise and simple and the reporting frequency was as infrequent as possible.

3. Some firms used "lack of clerical staff" for failing to participate in a collection program while others felt that additional clerical staff might be necessary in order to participate in the program.

<u>Auxiliary Information</u>

The interviewees were asked whether they could identify "hard-to-fill" vacancies and 50 of the 62 firms said they could do so. While 25 of the firms tried to demonstrate this by listing occupations and occupational categories for which they had hiring problems, many of the other firms answering in the affirmative said they had never had any hiring problems. No attempt was made to define the term "hard-to-fill" at the time this question was asked; thus, the fact 50 firms reported they could identify a "hard-to-fill" vacancy need not mean that a common standard exists for this term.

An attempt was made to determine the "normal" length of time lapse between the beginning of recruitment and hiring to validate or invalidate the use of a specific period of time during which a vacancy may exist as a possible definition for the term "hard-to-fill." From the table below, it is apparent that a single specific time period would provide an inadequate definition, since the time periods varied greatly for different occupational categories. In some cases, employers volunteered two periods of time for an occupational group, though only one was sought. This was due to the fact that the expected recruitment time varied by individual occupation rather than by occupational group.

Occupational Group	Number of firms Replying	Expected Recruitment Period (Modal Group)	Percent of Category in Modal Group
Laborers, Unskilled	44	1 to 2 Weeks	93.2%
Semi-skilled	43	1 to 2 Weeks	76.7%
Foreman	27	1 Month	37.0%
Skilled Maintenance	30	2 to 4 Weeks	46.7%
Skilled Production	22	2 to 4 Weeks	36.4%
Clerical	47	1 to 2 Weeks	53.2%
Sales (retail)	20	1 to 2 Weeks	55.0%
Sales (other)	24	2 to 4 Weeks	33.3%
Managerial	31	Over 1 Month	45.2%
Professional and Technical	32	1 Month	34.4%

The 62 interviewees were asked if they could assign reasons for their difficulty in filling a vacancy for an unspecified occupation from a list of reasons given them. More than three-quarters of the firms (48) gave "lack of qualified workers" as a reason. Other reasons, such as wages, commuting difficulties, unfavorable location, working conditions, fewer fringe benefits and second and third shifts, were given by only three to 12 of the respondents. Some respondents who gave "lack of qualified workers" as a reason stated they checked this reason because they found that the qualified workers were "unwilling to work." These respondents were in industries characterized by low wages and highly seasonal activities, yet none of these firms indicated that wages, working conditions, or other conditions of employment were reasons for the inability to fill jobs. Since all of the reasons, except "lack of qualified workers," can be interpreted as criticisms of a firm's policy, it is not surprising that this was the overwhelming preference of respondents.

Interviewees who had no formal job vacancy records were asked whether there was any special company procedure for handling recruitment where openings were difficult to fill. More than half (29) of the 49 firms which replied said "no." However, many of 25 who replied affirmatively described procedures which were automatically instituted whenever a vacancy occurred and these procedures were considered to be a part of the regular recruitment process.

More than three-quarters (48) of the 62 interviewees thought job vacancy data could be collected by mail. Again, the majority felt that the form had to be simple and concise and that the reporting frequency should be as infre-

quent as possible. Seven firms did not respond to this question since they had already refused to participate in the collection of job vacancy information. Eight firms preferred personal visits, telephone collection, or would not cooperate due to lack of staff in any project of this type. Those who preferred other than mail collection felt that this information could not be collected by mail "because the information would be worthless" when it reached the collecting agency. Possibly these respondents were assuming, along with those who refused to cooperate, that the collecting agency wanted the information in order to assist in recruiting, although they had been told otherwise.

Interviewers' Comments

The interviewers found that seven of the 62 firms would refuse to participate in the proposed collection program. They found that nine other firms were reluctant to take part in the program although they agreed to furnish job vacancy data. All of the comments by these 16 firms fell into one or more of the following categories:

1. Doubted the usefulness of the information they would be asked to submit.

2. Could not see how they would benefit from the collection of such data.

3. Had insufficient staff for filling in the necessary reports.

4. Had "no use" for the increasing number of government reports.

Thus, 16 of the 62 firms were not likely to cooperate at all or might drop out of a collection program at an early date.

The interviewers found that some of those firms which said that they would cooperate fully had some of the reservations listed above, especially those noted in items one and two. However, this group of firms tended to be concerned with:

1. The simplicity and conciseness of the reporting form.

2. The reporting frequency.

3. How the individual firm could use the data collected.

4. The time-lag between reporting and data publication.

If these reservations are not met with forceful arguments, some of the firms in this group might also withdraw from a proposed reporting program.

In connection with the questionnaire itself, the interviewers encountered problems in about half of the interviews. The first problem was the length of the questionnaire. Although the actual interview took from 45 minutes to one and one-half hours (interruptions included), many interviewees became restive and showed signs of annoyance. But the interviewees said nothing until questions were asked which the interviewee felt were irrelevant or which he felt he had already answered. Therefore, it can be inferred that many employers thought that the questionnaire could have been shorter.

The interviewers had a great deal of difficulty securing responses to questions without pre-determining those responses. This was especially true with questions concerning situations with which employers had had no experience. For instance, the questions concerning the definition of a job vacancy were troublesome for many participants. However, such questions would not appear on a schedule used for the regular collection on job vacancy data.

Employer Reporting Schedule

While the first part of the study (the questionnaire) tried to attack definitional problems and to identify the unit in the responding organization which could furnish job vacancy data, this part of the study tried to find out about reporting problems through an actual tryout of a reporting form. As it turned out, this was the crucial part of the study.

The employers who agreed to cooperate in a collection program were offered copies of a proposed Employer Reporting Schedule along with agency-addressed, postpaid envelopes. The employer was to:

1. Enter the total number of workers on his payrolls as of the fifteenth of the month.

2. List the job title of each vacancy in the firm, the total number of vacancies for each job title, check the job titles which were considered to be hard-to-fill, and provide comments on why the job title was hard-to-fill, if possible.

Specifically, this part of the study was an attempt to determine:

1. The response of those who said they would cooperate.

2. The usefulness of the information submitted.

3. The problem of classifying the information submitted.

Seven of the 62 firms refused to cooperate and did not accept the Employer Reporting Schedule. Of the 55 firms given Employer Reporting Schedules, approximately one-fifth (10) never returned the schedules. This demonstrates that some who initially promise cooperation will fail to submit even an initial reporting form. Thus, 17 of the original 62 firms did not take part in this portion of the study.

Of the 45 Employer Schedules returned, four were immediately returned to the interviewer with the explanation that the firm had no vacancies at that time. There is some doubt in these cases, as well, whether these firms would comply with the requirements of a reporting system, although they were counted as having returned their schedules.

The size of a firm did not seem to influence the cooperation of the employers in this phase of the study as the table below reveals.

Distribution and Return of Employer Schedules by Size 1/ of Firm

	Total in Study	Returned Schedules	
		Total	With Job Vacancies
Total Firms	62	45	16
Small Sized Firms	19	14	2
Medium Sized Firms	21	15	4
Large Sized Firms	22	16	10

1/ Firms in each industry were arrayed by number of employees and then divided into three equal groups.

However, firms in some industries did not cooperate at all in this phase (Eating and Drinking Places and Construction) or only one of the three firms chosen cooperated (Food Products, Chemical Products and Insurance Carriers). An analysis of the questionnaires from the firms in the Eating and Drinking Places and Construction industries revealed two reasons for their lack of cooperation. First, the operations of these industries require continuous manning of work stations. Therefore, a work station can not and does not remain vacant for more than a few hours. Second, these two industries characteristically hire through unions and employment agencies. The evidence for these points rest in the interviewers' evaluation of the respondent's reaction and cooperation. Some typical comments were:

> "Employer's urgency to fill all vacancies seemed to prevent his participation in this proposal."
>
> "Employer is interested in plan but feels time lapse will preclude cooperation."
>
> Employer "...understood need for such a survey, but felt that the construction industry was not an industry that could submit job vacancy data, as their openings were filled through the union and personal contacts within the industry."
>
> Employer "...felt that construction industry would not be helpful in a survey of job vacancies since the vacancies are filled through unions, employers, etc.".

Thus, most of the time a telephone call suffices to fill a vacancy, so there is no record, little need for alternative labor sources and no demand for the type of information evolved by a study of this sort on the part of these participants.

The other group of industries which seemed lax in cooperating with this phase of the survey presented quite a different problem. Upon analysis, the questionnaires of the firms in the Food Products, Chemical Products and Insurance industries revealed no consistent pattern. However, some firms did complain that they lacked clerical workers for this task.

Of the 45 returned Employer Schedules, 29 either listed no job vacancies or had "no vacancies" written thereon. At the same time, two of the 29 schedules failed to list even the number of employees in these firms. Thus, two more firms

can be added to the list of "doubtful" participants since they, too, refused or overlooked the required reporting steps.

The 16 Employer Schedules which listed job vacancies were about one-third of the 45 schedules returned. Ten of the 16 schedules with job vacancies on them were returned by large-size firms, four by medium size firms and only two by small size firms. Although large-size firms are more likely to have vacancies than smaller firms, the fact that large-size firms reported vacancies may indicate that these firms are better prepared to supply such information since they have had to standardize and centralize machinery for the identification and filling of vacancies to meet their needs.

These 16 schedules contained a total of 178 job vacancies which were distributed among 65 separate job titles listed. Although there were 65 separate job titles for which there were vacancies, there were not that many separate occupations for which there were vacancies. However, to determine the actual number of occupations involved, all 65 job titles had to be classified.

The Dictionary of Occupational Titles (D.O.T.) was the occupational classification system used to code the schedules. Job titles reported were compared with the job titles in the Dictionary of Occupational Titles and then assigned the appropriate D.O.T. code. There was no additional information available for 58 of the 65 job titles. Employers supplied brief job descriptions for the remaining seven job titles which were then compared with the job descriptions in the D.O.T. before being coded.

Six of the seven job descriptions came from an employer who publishes a flier called "Open Jobs" each week as part of his recruitment process. In lieu of filling in the Employer Reporting Schedule, this employer attached this flier to the schedule and returned it. The flier carries the job title and the number of vacancies for each job title for all the vacancies he wishes to fill. It also contains a brief job description for each job title, when the opening occurs but not if it remains open in subsequent weeks.

The seventh job description was obtained by an alert interviewer. This person noted that the job title placed on the Employer Reporting Schedule ("Packer") did not adequately describe the job duties ("Pie Filling Machine Operator"). Had he not done so the job would have been coded 9-68.30 and therefore been an unskilled job opening instead of 6-02.332, a semi-skilled job opening. This incident also points up the kind of error which can occur when classifying job openings on the basis of the employer's job title alone.

When the coding of job titles was attempted, the following resulted:

Number of Job Titles Reported Grouped by Possible Number of D.O.T. Codes

Total Number of Job Titles	65
Single D.O.T. Code Assigned	50
Two D.O.T. Codes Possible	9
Three or More D.O.T. Codes Possible	6

While it was possible to assign a single code to 50 of the 65 job titles, there were 15 job titles which had two or more possible codes. One job title in the latter group had 37 possible codes. These 15 job titles divided themselves into two groups which were:

1. Those job titles which combined job duties of several distinct and codeable occupations.

2. Those job titles for which a job description was required before a specific code could be assigned.

Many of the two-code job titles fell into the first group while the second group was made up of all those job titles with three or more possible codes.

There were three results from the attempt to code the job titles. First, the number of different jobs were reduced from the 65 job titles originally listed to 55 coded occupations. Second, the attempt demonstrated the difficulty of identifying specific jobs from employer reports, since some of the job titles could have been given more than one code. Third, there is no real assurance that the job titles to which a single code was assigned have job duties corresponding with those for the code given that job title.

CONCLUSIONS

Definition of "Job Vacancy"

It can be concluded that the following definition for the technical term "job vacancy" presented would be acceptable:

> "All permanent jobs for which the firm is now actively recruiting workers."

This differs from the one suggested in Question 6, Section B of the questionnaire which read as follows:

> "All jobs lasting more than 3 days for which the firm is now actively recruiting workers."

This change was prompted by the fact that many of the employers were not sure what "lasting more than three days" meant. Some employers felt that they would not recruit for any job that lasted for less than one week and therefore rejected the phrase, while others felt that the job had to be vacant at least three days before it could be counted as an opening. The revised definition would considerably improve understanding, and therefore, the results of any attempt to collect job vacancy information.

From the evidence presented by the interviewees in this section of the questionnaire, it is evident that employers are more familiar with the term "job opening" than with "job vacancy." The former term was used quite frequently during the entire interview by the employers. Therefore, the term "job opening" ought to be substituted for the term "job vacancy."

Job Vacancy Records of Employers

The existence or non-existence of written job vacancy records does not seem to be an important factor in collecting current job vacancy data, as both

firms with written records and those without written records can supply job vacancy information. However, the fact that so few firms have written records has significance. First, job vacancy data can not be accumulated for past periods. Second, those employers who have seen no reason to keep records on such data in the past may become easily disillusioned with a program to collect such information in the future.

Many employers stated that job vacancy data are records which are highly perishable. This is due, no doubt, to the fact that many firms keep either temporary or only "montal" records on job vacancies. Therefore, the collection form used in a job vacancy data program would have to request information as of a specific day or date following the day or date of mailing of such forms to employers.

Thus, the availability of job vacancy data, despite the fact that 55 of the 62 employers queried said that they would participate, turns on a number of different and unrelated issues. These issues are:

1. The simplicity of the reporting form.

2. The frequency with which these forms must be submitted.

3. The use that is to be made of the collected data.

4. The intensity with which the program is "sold" to prospective participants.

    a. To overcome the resistance to government reports.

    b. To prove that the information is vital to his firm, his industry or his community.

Auxiliary Questions

The length of time a job remains vacant varies by occupational category and there is even evidence that it varies within occupational categories. Therefore, a definite length of time can not be used to define the term "hard-to-fill."

It is also clear that employers are not likely to assign valid reasons for their difficulties in filling job openings. Rather, they tend to place the onus for their difficulty on the "lack of qualified workers."

The question in regard to "special machinery" for recruitment was fruitless. The answers to this query indicated that most of the respondents considered this machinery to be part of the regular recruitment process.

While 48 of the 62 firms interviewed thought that the data could be collected by mail at a later date, the fact that 10 of the 55 firms given collection schedules failed to return them leaves this response in doubt.

Employer Reporting Schedule

This phase of the study revealed a number of problems and uncertainties which could affect a job vacancy collection program. There is the problem of whether employers requested to participate in a collection program would return a significant number of schedules. The fact is that 10 firms given such

forms did not return them, four firms reported no vacancies and returned the forms on the spot, two firms mailed in the forms marked "no vacancies" but did not include the only other entry they had to make, their employment, and seven refused to cooperate in this part of the study program. Thus, 23 firms did not attempt to go through the steps which would be required of reporting firms.

It must be kept in mind that only one-third of the 45 schedules returned contained job vacancies. This ratio poses great difficulties for estimating job vacancies by occupation until such information has been collected for a period of time.

Among the 16 schedules containing information on job vacancies, only 50 of the 65 job titles could be assigned a single code. Multiple occupational codes were indicated as appropriate for the other 15 job titles. Thus, 15 job titles could not be tabulated. While there were only 38 of the 178 vacancies reported in these 15 job titles at this time, a larger proportion of the total vacancies may occur in job titles for which multiple codes are necessary.

The situation that pertained to the "Pie Filling Machine Operator" who was called a "Packer" by the employer casts strong doubt on even those job titles which were assigned a single code. Since the Dictionary of Occupational Titles has not been universally adopted by employers for their use, job nomenclature is still a "babble of tongues." Therefore, in order to code reported job vacancies accurately, it is necessary to obtain job descriptions.

On the positive side of the ledger, this phase of the survey did determine that the job title, the number of vacancies and whether the employer found these vacancies hard-to-fill could be placed on the form used. There was also enough space on the form for the coding of the occupational titles.

Another positive fact is that some firms already publish lists of job vacancies as part of their normal recruitment process. Although such lists may be isolated and restricted to the larger firms now, a keen eye should be kept on any further developments in this line to see how the employment security agencies can take advantage of it and how the agencies can encourage it.

RECOMMENDATIONS

If a job vacancy data collection program utilizing the methods and techniques employed in this study is to be pursued, the following steps are recommended as a precondition for the success of the program:

1. An intensive public relations program should precede the inauguration of the program to convince the local chamber of commerce, trade associations, large employers and other agencies in the community that this program will evolve information useful to all elements in the community for planning purposes.

2. A sample of firms should be selected which would be statistically valid for the purpose of inflating all figures to universe values. This would have to be a large sample so that the number of vacancies for individual occupations would be significant in and of themselves. Such samples should allow for non-respondents and for reports marked "no vacancies." Initially, it might be better not to inflate sample data, but merely to study the vacancies reported by the sample firms.

3. Use the Dictionary of Occupational Titles for occupational classification but retain enough flexibility to allow for occupational combinations, where training requirements are similar. Also allowance should be made for the addition of emerging occupations before they are included in the Dictionary of Occupational Titles.

4. Collect a list of job descriptions from each of the participating firms for all of the job titles in that firm so that the firm need not be contacted for additional job descriptions unless a new job title should appear. This step, if accomplished, would mean that the coder could consult a pre-coded list of job titles for that firm in processing the employer reporting schedule.

5. If the job vacancy report is to have timliness, precoding of occupations could be provided by individualized questionnaires prepared for each firm in the sample, or for groups of establishments with a common occupational pattern, listing all plant job titles for firms in the sample under the five or six digit Dictionary of Occupational Titles Codes for each job. Also, an open end listing space for new occupations should be provided. The respondent employer would then be required to report only the number of job vacancies existing for each occupation as of the date of the report. This would then require only a minimum editing of the returned questionnaires prior to electronic data processing.

Even with the aids described above, it should be realized that the collection of job vacancy data would involve a great deal more staff time and effort than any of the current employment statistics programs now being handled by State employment security agencies.

Because of the high cost of collecting these data directly from employers it is suggested that other means of collecting job vacancy information be examined before this or a similar method is fully developed and employed. One alternative might be to utilize the order taking facilities of public employment agencies to obtain data on bona fide job vacancies which are accurately classified by occupation and accompanied by wage rates offered for the job openings. A relatively simple application of EDPM techniques could make these data readily available by area and industry. It would have the advantage of permitting an evaluation of the extent to which the offerings are at prevailing rates of pay, and additional information on employers specifications of sex, age, training, experience and union membership would also be obtainable from this source.

FEASIBILITY STUDY OF PROBLEMS IN THE COLLECTION OF DATA ON JOB VACANCIES

METHODOLOGY

Purpose

The U. S. Bureau of Employment Security requested the Illinois Bureau of Employment Security to undertake a feasibility study of the problems involved in the collection of job vacancy data. This action was prompted by recommendations for the collection of job vacancy data in reports from both Federal and State agencies.

The President's Committee to Appraise Employment and Unemployment Statistics issued a report in September, 1962 (often referred to as "The Gordon Report"), which recommended that the U. S. Department of Labor initiate a job vacancy research program. In Illinois, the report of the Governor's Committee on Unemployment recommended that the U. S. Department of Labor receive encouragement in its work to devise means to measure job vacancies and report such findings on a regular basis. It also recommended that Illinois be the State to initiate an experimental job vacancy data program.

An agreement was reached between the Illinois Bureau of Employment Security and the U. S. Bureau of Employment Security that the former's Research and Statistics Section would undertake a study of the feasibility of collecting job vacancy data by interviewing a sample of Cook County firms in various industries. The basic design of the feasibility questionnaire and a proposed employer job vacancy collection schedule, developed jointly by the U. S. and Illinois Bureaus of Employment Security, reflects the objectives of the study. They were to obtain information on the following points:

1. To determine a suitable definition of the term "job vacancy".
2. To determine the extent to which employer job vacancy records exist.
3. To determine whether and what kind of job vacancy data could be collected.
4. To determine what problems would be encountered by a job vacancy data collection program.

Planned Procedure

Technical direction of the job vacancy study then passed into the hands of the Research and Statistics Section of the Illinois Bureau of Employment Security. Sixty firms were selected from a 1962 listing of Cook County firms covered by the Illinois Unemployment Compensation Act 1/. This County, which includes the City of Chicago, was selected because it presented the greatest array of firms and industries in Illinois. More than 54 percent of the State's labor force is employed in this County.

The sixty firms were selected from the twenty industries which employed the largest numbers of people in Cook County. This was done for two reasons. First, the 20 industries of largest employment offered the largest numbers

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1/ At the time the sample was chosen, the 1963 county listings were not yet available.

of potential vacancies. Second, interviewing three firms in each industry meant that analysis could possibly reveal whether or not responses varied by relative size of firm within an industry or between industries. The industries selected to be surveyed included at least one from every major industrial group except Public Administration.

The Research and Statistics Section then developed relative size criteria for each of the twenty industries after deleting all firms with fewer than four workers. This was achieved by arraying the firms in each industry by size of employment and then placing the one third of the firms having the highest employment in the "large" category, the next third in the "medium" category and the remaining third in the "small" category.

After the industries and their strata were established, a total of nine firms were randomly chosen, three in each stratum from each industry. The interviewer was required to select and interview one of the three firms in each stratum of each industry. The additional firms were selected in case any of the firms initially contacted failed to participate in the study, since at least sixty firms constituted the minimum sample derived for the study.

The interviews were conducted by twenty Employer Relations Representatives from Illinois State Employment Service local offices located in Chicago. The interviewers were selected from the Branch Offices and Sections serving employer accounts in the industries to be studied. They were assigned to interview firms in the industry in which they regularly handled employer accounts. This step was taken for two reasons: first, the interviewer was already acquainted with the operations, occupations and problems of the industry from which the sampled firms were drawn, thereby improving the accuracy of answers and evaluations; and second, each interviewer was required to interview only three firms, which allowed them to carry out their regularly assigned duties while participating in the study.

A one-day training session for interviewers was conducted by the Research and Statistics Section. The training session explained the background and purposes of the study, familarized the interviewers with the questionnaire and employer schedule and explained the conduct of the survey. The sample firms were assigned and the material and forms were distributed.

Survey Field Work

The responsibilities of the interviewer were to contact by telephone and interview the executive in the sample firm who set personnel policy. The completed questionnaires were to be returned to the Research and Statistics Section when the three interviews were completed. The interviews were to have been completed within two weeks. However, the interviewers felt that a letter explaining the objectives of the study should precede their telephone call by several days. A form letter, signed by the Employment Security Administrator containing the name of the interviewer, was sent to the employer prior to the visit. This method was used to obtain interviews from forty of the sample firms.

Covered Employers And Surveyed Firms With Their Employment
By Industry, Cook County, Illinois

Industry Code	Industry	No. Of Employers	Employment	Surveyed No. Of Employers	Surveyed Employment In 1963
	Total Covered Firms	59,700	1,936,276		
	Total, Twenty Industries	34,731	1,308,268	62	24,696
	Percent, Twenty Industries of Covered Firms	58%	67.6%		
	Average Employment	--	376.7	--	398.3
17	Construction--Special trades	4,033	48,441	3	132
20	Food and Kindred Products	906	79,755	3	133
23	Apparel and Other Fabricated Textiles	652	27,412	5	426
27	Printing, Publishing and Allied Industries	1,512	76,215	3	705
28	Chemicals and Allied Products	546	32,583	3	237
33&37	Primary Metals and Transportation Products	483	85,267	3	5,224
34	Fabricated Metal Products	1,429	85,728	3	1,348
35	Machinery, Except Electrical	1,329	81,213	3	441
36	Electrical Machinery and Equipment	625	124,935	3	4,170
38&39	Scientific Instrument and Misc. Manufacturing	729	51,379	3	630
42	Motor Freight Transportation	1,228	44,180	3	786
48	Communications	64	29,618	3	452
50	Wholesale Trade	7,534	156,336	3	86
53&56	General Merchandise and Apparel Stores	2,046	107,612	4	5,544
54&59	Food and Miscellaneous Retail Stores	3,901	71,263	3	95
58	Eating and Drinking Places	3,331	51,607	3	178
60	Banking	339	28,749	3	931
63	Insurance Carriers	448	40,816	3	1,341
72	Personal Services	1,667	31,275	3	565
73	Miscellaneous Business Services	1,929	53,884	3	1,272
	Percent of Universe			0.2%	1.9%

No letter was used to obtain interviews from the other 22 firms, but 28 firms had to be contacted to obtain these 22 interviews. While this method was used largely with employers with whom the interviewers had previously had a working relationship, there were some firms, aside from those who would not allow an interview, which had had no previous contact with the Illinois State Employment Service and many of these were ambivalent during the interview.

The average time spent on this project by interviewers and their clerical staffs averaged 2.8 days or 21.3 hours per interviewer. The range ran from 1.6 days (10.6 hours) to 4.0 days (30.4 hours), but most of the interviewers took between two and three days to complete the project. These times include the one day (7.6 hours) training session.

Survey Returns

The Research and Statistics Section received 62 questionnaires from the interviewers and 41 employer reporting schedules from employers.

The extra questionnaires were the result of two additional interviews conducted by one of the interviewers. The employer schedules were to be left with those employers who agreed to cooperate in a job vacancy program. There were fifty-five such employers. While 41 schedules were returned, four firms refused to accept the schedules on the grounds that they had no vacancies to list. These were counted as having replied. The remaining ten never returned the schedule.

The questionnaires were tabulated by relative size and of firm and by industry, so answers for each question were available--by size of firm and by industry. The open-end questions, comments and evaluations were initially scanned and later grouped and summarized.

Employer schedules were separated upon receipt into two groups--those with job vacancy data and those without job vacancy data. The schedules with vacancy data had Dictionary of Occupational Title codes assigned to the listed occupations, where possible. Then the total number of occupations and the total number of vacancies were tabulated. (See Table Attached)

Job Vacancy Feasibility Study

Employer Reporting Schedules

Assigned Occupational Codes	Employer's Job Title	No. of Openings
(0-01.20) (0-01.30)	Senior Accountant	1
(0-01.20) (0-01.60)	Bank Examiners	2
0-06.53	Procurement Editor	1
(0-06.53) (1-10.11)	Assistant Editor-Mathematics	1
0-06.94	Copywriter	2
0-22.10	Attorney	1
0-43.30	Display Trainee	2
0-68.70	Management Development	1
0-69.981	Data Processing Programmer	1
0-69.985	Computer Operators	2
0-74.13	Department Manager	8
0-81.08	Account Executive (New Business)	1
(0-91.60) (1-33.01)	Secretary-Buyer	1
0-97.03	Executive Secretary	1
1-01.31	Accounting Clerk	1
1-01.31	Accounting Control Clerk	1
1-01.31	Accounting Clerk	1
(1-02.01) (1-02.02) (1-02.03)	NCR 3100 Machine Operator	1
1-04.01	Scoring Machine Operator	1
1-05.01	Clerk	1

Job Vacancy Feasibility Study (Continued)

Employer Reporting Schedules

Assigned Occupational Codes	Employer's Job Title	No. of Openings
1-05.01	General Clerk	16
1-06.02	Window Clerk	1
1-06.02	Express And Silver Teller	2
1-12.04	Credit Interviewer	1
1-15.02	Installment Collection Man	2
(1-17.01) (1-17.02) (1-17.03)	File Clerk	1
(1-17.01) (1-17.02) (1-17.03)	File Clerk	1
1-18.64	Order Editor	1
1-18.66	Production Control Operator	1
1-19.11	Buyer's Clerical	1
1-23.02	Page Girl	1
1-25.22	Policy Clerk	1
1-25.62	Key Punch Operator	1
1-25.62	Key Punch Operator	3
1-25.64	Tab Operators	2
1-33.01	Secretary	2
1-33.01	Secretary	1
1-33.01	Secretary, Jr	1
1-37.34	Clerk-Typist	2
1-37.34	Clerk-Typist	2
1-37.34	Clerk-Typist	2
1-37.34	Clerk-Typist	1

Job Vacancy Feasibility Study (Continued)

Employer Reporting Schedules

Assigned Occupational Codes	Employer's Job Title	No. of Openings
1-38.01	Stockman	1
(1-75) (33 Possible Codes)	Salespeople	8
2-61.03	Plant Watchmen	6
(2-84.10) (2-86.10) (2-86.20)	Janitors	4
2-86.10	Janitor Supervisor	1
2-95.20	Elevator Operator (Passenger)	1
4-26.101	Tailors (Male & Female)	20
4-32.100	Cabinet Patcher	1
(4-75.010 (5-78.100	Machinist-Millwright	2
(4-76.020) (4-76.210)	Tool & Die Makers	5
(4-85.020) (4-85.040) (4-85.060)	Welder	2
(4-85.060) (6-95.047)	Electronic Spot Welding Set Up Men	2
5-81.030	Journeyman Mechanic	1
5-83.444	Electronic Lab Technicians	2
5-99.070	Receiving and Shipping Supervisor	1
(6-02.332) (9-68.30)	Packer Pie Filling Machine Operator	2
(6-14.131) (6-27.072) (7-59.910)	Crochet Beader Crocheter-Hand Beader Bead Stringer	4

Job Vacancy Feasibility Study (Continued)

Employer Reporting Schedules

Assigned Occupational Codes	Employer's Job Title	No. of Openings
6-27.313	Bonnaz Machine Operator	3
6-27.502	Sewing Machine Operator (Single Needle)	6
(6-78.031) (6-78.145)	Milling Machine Operator Automatic Screw Machine Operator	1
6-98.210	Electrical Repairman	3
7-83.362	Set-Up Man Drill Press	1
8-98.01	Female Line Assemblers	5
8-98.01	Female Line Relief Operators	10
8-98.01	Male Line Relief Operators	6
9-88.01	StockHandler - Warehouse	1
9-88.40	Material Handler	2

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ISES-DUC
Illinois Department of Labor
165 N. Canal Street
Chicago 6, Illinois

J O B V A C A N C I E S - E M P L O Y E R S C H E D U L E

(Local Office) (Person) (Number)

Employer's Name _____ E.I. No. _____

Address _____ Industry _____

_____

(to be filled in by State agency)

(Please read enclosed instructions before completing this questionnaire. If you have any questions, please telephone)

A. Total number of employees on payroll during pay period ending nearest fifteenth of _____ (month and year). _____ (number)

B. Occupational Listing of Job Vacancies expected to last more than 3 days for which the firm is now actively recruiting workers.

D.O.T. Code	Establishment Job Title	Total No. of jobs vacant	Check if hard to fill	Comments
(1)	(2)	(3)	(4)	(5)
xxxxxx	TOTAL		XXXXXXXXXXX	

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ISES-DUC
Illinois Department of Labor
165 N. Canal Street
Chicago 6, Illinois

B. Occupational Listing (Cont'd.)

D.O.T. Code	Establishment Job Title	Total No. of jobs vacant	Check if hard to fill	Comments
(1)	(2)	(3)	(4)	(5)

JOB VACANCIES SURVEY

INSTRUCTIONS

A. Number of Employees:

Enter the total number of workers on all payrolls of the establishment who worked full or part-time or received pay for any part of the pay period ending nearest the fifteenth of the month. Include persons on vacation and sick leave who received pay directly from your firm for the pay period reported, but exclude persons on leave without pay, pensioners and members of the Armed Forces carried on the rolls but not working during the pay period reported.

B. Occupational listing of job vacancies expected to last more than three days, for which there is active recruitment.

Active recruitment is defined as follows: Recruitment is active for the period during which the employer continues to depend on the following efforts to fill his jobs: solicitation of applicants for specific jobs through notifying the firm's personnel department; gate hiring; listing with public or private employment agencies; through announcements within the establishment, to unions or professional organizations; or through the use of mail, radio, newspaper, and other promotional devices.

Column 1: Leave blank

Column 2: List establishment's job title. A single listing may be used for vacancies with identical job titles. If there are several classes or grades for specific occupations, each class or grade should be listed separately. (Please use Dictionary of Occupational Titles (D.O.T.) if possible).

Column 3: Enter the total number of jobs vacant for each job title listed.

Column 4: Check (X) occupations where you have found vacancies hard to fill.

Column 5 (Optional): Make any comments which you deem pertinent (using back of page, if necessary) regarding reasons why particular jobs are hard to fill.

When the form is completed, please return in the accompanying self-addressed stamped envelope.

Thank you for your cooperation.

Preparation of Report

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